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IN THIS ISSUE

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EDITORIAL DEPARTMENT NOTE

Last year the Boston Chapter conducted its fourth Education Forum. A series of six meetings were held on the subject, "The Application and Uses of Standard Costs." The first three meetings were devoted to the presentation of case studies on the application and uses of standard costs in three industries of especial interest in the vicinity of Boston: the machine tool industry, the shoe industry, and the textile industry. After the formal papers, the meetings were thrown open for questions and answers. The last three meetings of the series were given over to open forum discussions, under the direction of a coordinator, of standards for materials, labor and burden, with special consideration given to a comparison of the methods used in the three industries considered in the earlier meetings.

At the second meeting of the series, Harold S. Wonson, controller of the Commonwealth Shoe and Leather Co., spoke on standard costs in the shoe industry. This address and the discussion period which followed elicited such favorable comments, that both the address and the following discussion are being presented in this issue of the Bulletin. Those who would like to make a further study of the system described by Mr. Wonson in this Bulletin will find a related article, "A Financial Budget for a Shoe Manufacturing Company," in the Bulletin for June 1, 1935.

Following his graduation from the Massachusetts Institute of Technology in 1907, Mr. Wonson spent three years on the teaching staff in the Department of Naval Architecture. In 1910 he entered the shoe industry in the cost department of the W. H. McElwain Co., where he later became Assistant General Superintendent. At the outbreak of the War, as a result of his membership in the Massachusetts National Guards, he was sent to Washington to assist in the organization of purchasing under Julius Rosenwald's Committee on Supplies. He later served as Assistant to the Quartermaster General and as Divisional Quartermaster of the 19th Division, with the rank of Lieutenant Colonel. Following the war, Mr. Wonson returned to the W. H. McElwain Co. as Manager of the Sole Leather Division, which position he held for eleven years until his company was merged with the International Shoe Co. He continued with the latter company until 1930 when he took over his present duties.

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NOVEMBER 1, 1936

THE APPLICATION AND USES OF STANDARD COSTS IN THE SHOE INDUSTRY

By Harold S. Wonson, Controller,
Commonwealth Shoe & Leather Co., Whitman, Mass.

THE use of standard costs in the shoe industry began to develop over 25 years ago, although no one thought of referring to such a thing as a standard cost system in those days. It is hard for us of today to realize the complete absence of planning, which existed in shoe manufacturing thirty-five or forty years ago, when orders were taken by the various manufacturers without regard to the productive capacity of their factories or of their lasts and other shoe-making equipment. Deliveries of orders taken were uncertain and an order placed today might be delivered in one month or the retailer might have to wait several months for his shoes. Nobody worried very much about it except the retailer.

Just before the turn of the century, a wise and intelligent young manufacturer concluded that this planless method of producing shoes with the tremendous variation in factory production which accompanied it was unnecessary. In his opinion, it was perfectly possible to take an order for shoes, guarantee their delivery on a certain date, and deliver the shoes on that date. He also decided that it was possible to determine with reasonable accuracy the costs of the different kinds and types of shoes.

The modern sheet system with its carefully planned use of lasts, dies, and patterns, its restrictions on the quantities, types of shoes and kinds of leathers which could be permitted to go through the factory at any one time and its careful follow-up of the progress of each order through the factory was introduced. Day work with its serious fluctuation in output began to be replaced by piece work and standard costs as a simple and logical method of determining the costs of the individual types of shoes and of checking on the accuracy of those determined costs came into being.

In spite of the conspicuous success of the company which originated these ideas, the shoe industry as a whole has been almost criminally slow in adopting the new methods. Today, most shoe companies try to plan their production, meeting with some degree

of success, but excepting a number of the larger and more successful companies, the majority of shoe manufacturing companies are still in the dark ages as far as real planning of their production or accurate determination of their costs are concerned.

I can safely say that today not more than 15% of the shoe manufacturing companies have anything approaching an accurate knowledge of their real costs. In fact, I have been severely criticized by a prominent member of our Association, a management engineer whose contact with the shoe industry as a whole has been vastly greater than my own, for placing the figures so high. His estimate does not go above 8%.

The term "Standard Costs," has in all probability, a different meaning for different industries. The easiest method of explaining to you what we mean by standard costs is to explain our methods of determining and using what we call standard costs. To us, a standard cost is not a cost which, once established, remains unchanged for a long period of time, but it is a cost which we have decided to adopt as our standard for as long a period of time as we can look into the future and decide upon the course of the materials markets and the probable sale of our shoes.

We have found from experience that it is practically impossible to determine with any reasonable degree of accuracy what we can expect for more than six or eight months in the future. For that reason, our standard costs are really what we anticipate our actual cost will be for the six months' period for which we are planning.

Establishing Standard Costs

Let us assume that we are about to establish our standard costs for the period beginning January 1 and ending on June 30 of any year. Our budget of expected sales has been prepared and from this we have worked out our probable budget of factory production. The purchasing departments have made a careful study of market conditions and of the stocks of materials we own or have contracted for. The cost prices of the different materials which they believe we should use in figuring our shoes are then tabulated and made a part of the merchandise catalogue. A small portion of this catalogue is illustrated in Exhibit 1.

EXHIBIT 1.

MERCHANDISE CATALOGUE, SPRING, 1936
STANDARD PRICE PER FOOT, UPPER LEATHERS

November 21, 1935

Kind of Leather	*Grade of Shoe* *A*	*B*	*C*
Black Russia—Grade & Price	B 39	C 35	C 35
Krippendorf Unit	11	10	9
Imported Box Calf	A 45	B 42	C 39
	10	9	9
Black Kid	B 32	C 30	C 30
	11	10	10
White Kid	A 45	B 42	C 38
	10	9	9
Russia Calf	B 42	B 42	C 39
	11	10	10

——Etc.——

STANDARD PRICE PER PAIR—BOTTOM STOCK

Outersoles	*Fine*	*#1S*
6 — 7½ Irons	33	31
8 Irons	37	34
8½ Irons	39	36
9 — 9½ Irons	44	39
10 —10½ Irons	51	47

Innersoles	
Regular 7 Iron Gem	25
Regular 6—6½ Iron Gem	23
Regular 5—5½ Iron Gem	19
Flex 6—6½ Iron Gem	31
Flex 5—5½ Iron Gem	27

N.B. Figures given above are fictitious and do not represent actually or in any proportion the real figures of any company.

The standard cost of upper and lining leathers are always given in cents per foot and must be translated into cents per pair of shoes by the use of the Krippendorf units and tables of allowances. The tables of allowances are based upon the number of feet of leather required to cut each of the many upper leather or lining patterns which we use. The Krippendorf units modify these footage allowances so that a larger footage of leather is figured into the cost of cutting a pattern on a high grade of shoe than is figured for the same pattern for a shoe of a lower grade. This is done to permit a little more careful selection of the different parts of the shoe when a better grade of shoe is being made.

The standard prices per pair of outersoles, innersoles and other bottom materials is decided upon in the same way by the sole leather purchasing department. Most of the outersoles and inner-

soles we use are purchased already cut, but in case it is decided to purchase whole stock and cut our own outersoles or innersoles, standard price allowances for bends, shoulders, heads and bellies are also set up.

The labor department makes a careful survey of labor piece prices and day rates, working with the factory superintendent and the various foremen. Ordinarily, few changes have to be made in

Exhibit 2
PRICE LIST

Factory:B — Labor Division:14--Heeling — Page: 1

Class Help:H — Class Wage: $27.00 2nd Grade — Date: December 1, 1935

Oper. No.	Price Reg.	Per Doz. Samples	Operation	Heel	Method
1	.175		Heel, Inc. Glue T.L. & Size Out	Lea. ex: Rub T.L. : Golf Steel Stud : Rex : Military	Machine
2	.142		Heel, Inc. Glue T.L. & Base & Size Out	Lea. : Rex : Military	"
3	.153		Heel, Inc. Size out	Rub. T.L.	"
4	.175		Heel, Base Inc. Size out	Golf Steel Stud Turf " " All Heels 1¼" and over with Rub. T.L.	"
5	.142		Heel, R.&L. Heels Inc. Size Out	Sturdiarch : Rub	"
6	.139		Heel Base Inc. Size Out	Orthopedic : Rub. T.L. Anatomic : " "	"
7	.412		Heel Base & T.L. Inc. Size Out & Nail	Insert Heel	"
8	.205		Heel: Top Lift: Rub.	All Heels 1¼" and over with Rub. T.L.	"
9	.183		Glue by Hand, lay top Lift on Heel, put into machine	Golf Steel Stud Turf " "	"
10	.271		Heel, Base & T.L.Inc. Size Out	Orthopedic: Lea. T.L. Anatomic :	"
11	.125		Place Rub. Heel on sole Place T.L. on base	Whole Rub. Heel: Lea. or Rub. Sole ex: Tennis	Hand
12	.079		Heel R.&L. Heels Inc. Size Out	Pliarch : Rub. F or G.G. wedge: Rub. T.L.	Machine
13	.217		Heel R.&L. Heels Inc. Glue & Size Out	F or G.G. wedge: Lea. T.L. Str. Lea. R.&L. Str&rst	"
			All samples require spotting and two mailings on Rub. Top Lifts and must be paid.3¼ per dozen. This does not apply to Window Shoes or 10 days.		

N.B. Piece prices given above are fictitious and bear no relation actually or in any proportion to the prices paid by any company.

the labor lists which is fortunate, as we have some 25,000 different piece prices. Exhibit 2 illustrates such a price list, this particular sheet showing a part only of the entire list of prices on one of approximately 150 operations which must be performed on a shoe while it is being made.

Day work costs per pair are computed by dividing the day work payroll for each department by the estimated average production, an allowance being made for the extra work which must be done on shoes that are damaged in the course of making. The budgets of manufacturing expense costs and of selling expense costs have been translated into cents per pair or per cents of selling costs. The average cost of royalties and rentals on machinery has been computed for the estimated production and allowances per pair for lasts, dies and patterns, losses on returned shoes, losses due to bad debts, excess cost of producing samples, etc., have been decided upon.

From this mass of material, the cost department then puts into finished form—

A. The merchandise standard cost catalog, containing the standard cost per foot of each grade of upper and lining leathers, the grades of leather to be used on each grade of shoe we make and the Krippendorf units to be used in determining the footage allowance for each grade of shoe.

The Krippendorf footage allowance for each cutting unit on every pattern we use has been established by a careful survey of each pattern as it has been added to our list of patterns and these figures usually remain constant during the life of the pattern.

This catalog also contains the standard cost per pair of every kind, quality and weight of outersoles and innersoles we expect to use, of every kind and height of heel, rubber or leather top lifts, counters, box toes, welting and a large number of special findings such as fancy eyelets, special heel pods, special laces, cartons, carton labels, and so forth.

A standard allowance per pair for the different grades of shoes is also included for what we call "Findings General," which consists of approximately 180 different

items such as cements, blackings, dressings, waxes, nails, tacks, wire, etc., which are used in producing the shoes, but which cannot be definitely allocated to each individual shoe.

B. The labor cost catalog which is made up of 12 or 15 fat volumes, one for each department in each of the factories, containing individual piece prices to be paid for each of approximately 25,000 different operations which may be performed on the many different types of shoes we make.

The labor cost catalog also includes the standard day work allowance for each of the factory departments and these day work allowances are further subdivided into: direct labor, covering operations on which it has not been found feasible to develop piece prices; indirect labor, covering the work of pattern boys and others who do not work directly on the product but whose work assists piece operators in producing the shoes; and do-over labor which covers the work of cripple cutters and other operatives whose job it is to produce and replace the parts of the shoe which may be damaged in the regular course of the work through the factory.

C. The expense catalog covering the standard allowances per pair either in cents per pair or in per cents of other prices of—

1. Manufacturing expense
2. Selling expense
3. Administrative expense
4. Advertising expense
5. Royalty
6. Commissions
7. Discounts, etc.

Figuring Shoe Costs

These catalogs are then turned over to the cost figuring clerks whose work it is to compute and tabulate the costs of the individual shoes. Their first duty before the beginning of each season is to cost in detail approximately 175 base shoes. The description of each of these shoes has been prepared by the sales department and

they cover every type, grade and kind of shoes that we expect to make.

Every shoe sold by the salesmen must be based upon one of these base shoes and while minor modifications such as changes in the type of perforation, different types of eyelets, different brands of rubber toplifts, special cartons, and so forth, may be made, it is

EXHIBIT 3

COST FIGURING SHEET NO. 539

Season M Grade A Sample No. 7209

Last 729 Shoe Lace B

Pattern 743 LACE OXFORD Shoe Cut D 1

	Part.	Style	Finish	Fit or Fit	Color or Fit
Vamp BLACK RUSSIA 37			2 - 11	OK	
Tip			3 CL	OK	
		8543	3 CL		
Back Stay 14					
Tongue F. L.					

Lot No. 123 on Lin. Cut Lining & Carton Code F

Lining 31 FL Tape BK DBL

Fac. Inc. CAPE LL Bot. Stay Heel Stay

Hooks Eyelets 6 INV

Clr. SL Box Toe L

Welt 1/8 Middle Sole

Outsole 9 F

Insole 6 G Stamp YALE Factory

Stitch 14 F B

Heel 4 L Heel Base

Slug S B

Trim 13 S Sole Edge

Finish B Shank B Top Piece B Wheel

Forepart Stamp 6344

Shank Stamp 6344 6345

Pocket Cover SL Gold or Metal 5892 G

Lace G Dress B Carton 29

Cover Top 159 Cover Strap 159 Carton Label 159

Sales			Changes	
Date	Pairs	Sheet No.	Date	Detail
	N.B.	All prices given are fictitious and bear no relation actually or in any proportion to the prices paid by any company.		

Classification	Description	Per Pair Details	Per Pair Total	
Upper Stock		1270		
Vamp & Top				
Tip				
Tongue				
Foxing				
Lace Stay				
Back Stay		0050		
				9520
Linings & Trim.				
Lining				
Vamp Lining		0775		
Quarter Lining				
Tongue Lining				
Vamp Doubler				
Tip Doubler				
Top Doubler		0057		
Inside Heel Stay				
Top Facing				
Hi Eye or But St				
Misc St & Back				
				2254
Bottom Stock				
Outsole		4700		
Midsole or Top				
Insole		2500		
Welt		0300		
Counter		0850		
Heel		1150		
Heel Rand				
				9630
Findings Special				
Upper Thread		0085		
Hooks				
Eyelets		0270		
Lining Label				
Covers				
Box Toe		0850		
Bottom Thread		0080		
Shanks		0020		
Slg Wire or Pegs		0035		
Gold Studs				
Hook Pads		0063		
Laces		0101		
Embossing		0050		
				1386
Labor				
Cutting		1670		
Stitching		2170		
Bottoming		4080		
Sole Lay & Heel		0810		
Finishing		0720		
Trucing & Pack		0480		
			1	0000
Total Mfg. Cost.				6450
Total Fact. Cost			3	8425
Total Sell. Cost.				5385
Commission				2470
Total Cost			4	8175
Profit				2815
Net Selling Price			5	0990
Sales Discount				0495
Gross Sell. Price			5	1485

comparatively simple, working from the cost of the base sample to determine the cost of the shoe as modified.

Exhibit 3 illustrates a standard cost figuring sheet for one of these base samples. The description of the shoe taken from our standard abbreviation catalog is given on the left of the sheet, and is a replica of our factory tag. The shoe illustrated is to be made with a vamp, quarter, tip and tongue of black russia calf, for which the standard cost is 37¢ a foot. If, as in the case of certain sport shoes, different kinds of leather were to be used for the different parts of the upper, this would be so indicated on the tag.

Not all of the material items required in the shoe are specified on the tag as many of these items are standard on all types of shoes or standard for the particular grade of shoe being made and are automatically included in the material costs.

It is unnecessary to indicate on the tag the standard labor operations, but any deviations from standard are indicated, and in most cases the kinds of materials called for indicate automatically the labor operations which must be performed in connection with them. In the case of the shoe illustrated, the standard upper materials cost of 37¢ a foot has been translated as 92.7¢ a pair by the use of the Krippendorf footage allowance per pair for this particular kind and type of shoe made of this particular leather.

Krippendorf footage allowances are also used in determining the cost of 14.23¢ used for the quarter lining. All of the other material costs are taken from the standard merchandise cost catalog.

The detailed labor costs for each of the departments have been computed for this particular shoe using the standard piece price catalog prices for every piece work operation which must be performed. To these costs have been added the standard day labor allowances for each department and only the total labor allowance for each department is entered on the cost sheet.

Approximately 175 base shoes are figured in detail and our salesmen's samples are made to correspond exactly with the shoes so figured. The shoes which we make and carry in stock are also made exactly as the base shoes have been designed and in buying shoes out of stock, the customer obviously must purchase them without alterations of any kind. Certain customers however, prefer to have their shoes made up to their own order and in cases of

this sort, certain minor modifications of the base shoes are permitted.

When a make-up order is received from a customer, new cost sheets applying to the shoes of this customer only must be prepared, but as these shoes must always be based on our samples or base shoes, it is unnecessary to completely refigure the costs of the shoes. In costing these make-up shoes, the cost clerks work from the base shoe cost sheet, making such adjustments in material and labor costs as are required by the minor changes which the customer has called for.

Accounting Methods Used in Factory Production

The production department selects each day from its unentered orders on hand the number of dozens of pairs of shoes required for one day's factory production. I shall not go into detail of the operation of the factory tags or of the piece work coupon tags which form the basis of the piece workers pay, beyond saying that the piece work coupons for each operation must correspond with the piece work items used in figuring the shoe less the day-work allowance for each of the factory departments.

Small cost estimate sheets like Exhibit 4 are made for each individual shoe which is included in the day's work. The costs on these small sheets are taken from the corresponding large cost figuring sheets, but with the detailed items of each group consolidated as a comparison of Exhibits 3 and 4 will show.

The small cost estimate sheet may cover whatever quantity of shoes is to be made on that particular sample number. This may be anywhere from 12 pairs to several hundred pairs. The small cost sheets representing each day's factory production are delivered to the accounting department. The credits to manufacturing for the various material expenses and labor items are readily computed for each day's work from these cost sheets by the use of a type 2,000 N.C.R. machine.

The charges to manufacturing for each of the items listed on the small cost sheet are handled as follows: The standard footage allowance of upper leather at the standard cost per foot is computed for every factory tag. Several tags calling for the same upper leather and the same cutting patterns are consolidated and entered on an upper leather cutting sheet. After the shoes have been cut,

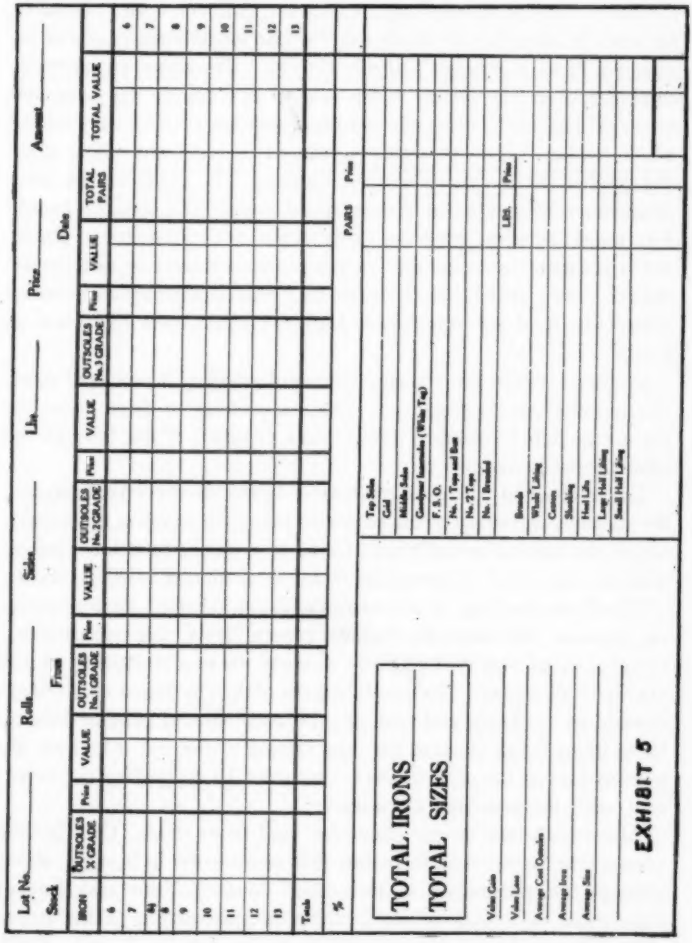
Form C-1 EXHIBIT 4

ORDER NO. 42 a **COST ESTIMATE SHEET** Our Sample or Stock No. 7209

DATE 1/5/35 Customer STOCK DEPT. Customer's Sample or Stock No.

CASE NO.	PAIRS	DAY SHEET NO.	DESCRIPTION	SAMPLE COST	ADJUSTED COST
73829	12	18	1-Upper Stock		9 3 20
73830	12	18	2-Linings & Trim'ngs		22 55
73831	12	18	3-Bottom Stock		98 30
73832	12	18	4-Findings Special		13 88
73834	12	18	5-Labor		1 00 80
73835	12	18	6-Mfg. Constant		65 50
			Total Factory Cost		3 94 23
			7-Commission		24 70
			8-Selling Constant		61 80
			9-Loss		
			9-Profit		28 12
			10-Discount		05 15
			18-Selling Price		5 15
			11-Outsole		47 00
			12-Insole		25 00
			13-Welt		06 30
			14-Midsole or Tap		
			15-Counter		08 50
			16-Heel		11 50
			Tot'l Bot'm Stock		98 30
			19-Cutting		16 70
N. B. All prices			20-Stitching		21 20
are fictitious.			21-Bottoming		40 80
			22-Sole Lea. & Heel		08 10
			23-Finishing		07 20
			24-Treeing & Packing		06 80
			Total Labor		110 9 80

the cost of the leather actually used is computed. The standard cost of the upper leather is charged to manufacturing and the difference between the standard cost and the actual cost of the leather used is debited or credited, as the case may be, to the upper leather



variation or gain and loss account. The same method is followed with leather linings.

All cut and sorted innersoles, outersoles and so forth, in the bottom stock account are carried in this account at standard prices, and are so charged to manufacturing when they are shipped into the factory on the factory tags. However, gains or losses are taken on soles or other items which may be purchased already cut or on soles cut from purchased leather. Exhibit 5 illustrates an outersole cutting and sorting record which is used to compute the gains and losses on purchased outersoles or on outersoles cut from purchased whole leather. The outersoles purchased or cut from whole stock are graded for thickness and for quality. The value of the soles produced is computed at our standard costs. The gain or loss is determined by comparing the value of the soles produced at standard costs with the actual cost of the purchased soles or of the purchased leather which has been cut up. Similar cutting and sorting sheets are used for innersoles, leather toplifts, heel lifts, and so forth.

Findings special are charged to manufacturing at standard costs. No monthly variation gains or losses are taken on these items but the accumulated variation gain or loss is taken at the time of the semi-annual inventory.

Labor charged to manufacturing is based on the actual payroll, the monthly variation gains or losses being based upon a comparison of the amount actually paid for labor with the total labor allowance for the month as computed from the small cost estimate sheets.

The items making up the manufacturing constant (manufacturing expense, allowance for findings general, lasts, dies and patterns, royalty, cases and cartons) are charged to manufacturing at the standard allowance. No monthly gain or loss is taken on findings general or on cases and cartons, the accumulated gain or loss on these items being taken at the semi-annual inventory. The monthly gain or loss on the other items is computed by comparing the actual cost with the standard allowance.

More than half of our shoes are sold from stock. Our factory production is quite uniform but this uniformity is brought about through the production in December, January, June and July of substantial quantities of stock shoes, in anticipation of the heavy shipment which will be required in the months of March, April,

August and September. For this reason, the credits to the selling account cannot be based on the figures given on the small cost estimate sheets which represent factory production and not sales. Credits at standard cost to the selling account for salesmen's commissions, selling and administrative expense, advertising, loss on returned shoes, reserves for bad debts, and so forth, are based on standard percentages of the dollar sales made to customers each

Exhibit b

WEEKLY REPORT
LABOR COST PER PAIR

*WEEK ENDING*_____

Department	Kind		Total Cost Per Week	Department Production	Average Cost Per Pair	Previous Weighted Average	Total Cost To Date	Department Production	Average Cost Per Pair
Cutting	*Piece*								
Stitching	"								
Sole & Heel	"								
Lasting	"								
Making	"								
Finishing	"								
Treeing	"								
Packing	"								
Cutting	*Day*	*Indirect*							
		Direct							
		By Piece Op's							
Stitching	*Day*	*Indirect*							
		By Piece Op's							
		Do Overs							
Sole & Heel	*Day*	*By Piece Op's*							
		Do Overs							
Lasting	*Day*	*Indirect*							
		Do overs							
Making	*Day*	*Indirect*							
		Direct							
		By Piece Op's							
		Do Overs							
Finishing	*Day*	*By Piece Op's*							
		Do Overs							
Treeing	*Day*	*By Piece Op's*							
		Do Overs							
Packing	*Day*	*Indirect*							
		By Piece Op's							
Sole & Heel	*Whitmen*	*Piece*							
	Rexhangs	*Day*							
TOTAL	*Piece*								
TOTAL	*Day*								
Grand Total									

month. Charges to these accounts, and the monthly variation gains and losses are based on a comparison of the computed allowances at standard cost with the actual cost of each of these items for the month.

As the monthly gain and loss and variation reports would not give us an effective control over operations, daily and weekly analyses are prepared for upper leather and lining cuttings by types of leather and by individual cutters, for the use of the cutting room foreman, the upper leather buyer and the factory superintendent.

As sole leather cuttings and sortings are handled in much larger units, the cutting and sorting sheets themselves are sent to the various executives interested. A more effective control of the labor cost is maintained by means of a weekly report of the average labor cost per pair, (See Exhibit 6) which compares the actual average cost per pair for each department, sub-divided into piece and day work, with a predetermined weighted average labor cost per pair.

Variation Reports and Analysis

As quickly as possible after the last day of each month, variation reports are prepared for the use of the company executives. The labor variation report is given on Exhibit 7. The actual labor loss or gain for the month has been determined by comparing the actual

EXHIBIT 7.

LABOR GAINS OR LOSSES
PRODUCTION 113% OF STANDARD
January, 1936

Department	*Kind*	*Actual Payroll*	*Cost Estimates*	*Gain or Loss*	*Volume Variation*	*Operating Variation*
Cutting	Piece	$ 5,327	$ 5,520	$193	..	$193
Stitching	Piece	8,991	9,080	89	..	89
Bottoming	Piece	16,719	16,710	9*	..	9*
Sole & Heel	Piece	1,989	1,999	10	..	10
Finishing	Piece	1,521	1,521	1	..	1
Treeing and Packing	Piece	2,317	2,315	2*	..	2*
Cutting	Day	2,471	2,425	46*	167	213*
Stitching	Day	1,003	1,001	2*	99	101*
Bottoming	Day	2,499	2,710	211	187	24
Sole & Heel	Day	1,675	1,855	180	128	52
Finishing	Day	1,587	1,712	125	18	7
Treeing and Packing	Day	837	904	67	63	4
Total		$46,936	$47,753	$817	$762	$ 55

N.B. Figures given above are fictitious and do not represent actually or in any proportion the real figures of any company.

* Negative figure.

payroll with the labor allowance as computed from the cost estimate sheet. Gains or losses on piece work are ordinarily very small and can usually be explained only as errors in computing the actual payroll or errors in computing the allowance.

If a large variation gain or loss appears on piece work for any department, we practically always find an offsetting loss or gain in the day work for this department. A checkup of these offsetting variations always shows that because of some out-of-the-ordinary manufacturing condition a certain amount of work which would ordinarily be done by piece operators has had to be performed by day work operators.

The labor gains or losses by departments in Exhibit 7 have been broken down into variations due to volume and variations due to operating efficiency or inefficiency. There can be no volume variation for piece work.

The volume variation entered in Exhibit 7 for the various day work items is due to a production of 13% above standard. When production falls below normal, it is usually impossible to make a corresponding reduction in the cost of day work unless the decrease in volume is substantial.

On the other hand, when production goes above normal, an increase in the cost of day work is only necessary when the increase is comparatively large.

Operating variations are carefully studied and the cause of variations can ordinarily be found and eliminated or corrected. Exhibits 8 and 9 show the comparison of the actual with the budgeted expenses for factory manufacturing expense and selling and administrative expense.

The variations listed on these sheets are operating variations only, variations due to the volume of production or the volume of sales being covered by an adjustment of the various items of the standard budget to allow for the change in volume. The adjusted budget is given in column 2 for purposes of comparison with the amount actually expended.

These budget comparisons are taken seriously by the various executives and variations ordinarily lead to quick action. Variations from the standard in these expense budgets are more common for individual months than in the other variation accounts. An exceptionally cold winter month or a delayed spring may raise

EXHIBIT 8.

BUDGET COMPARISON
FACTORY MANUFACTURING EXPENSE
MONTH OF JANUARY, 1936

STANDARD MONTH'S PRODUCTION, 42,000 Pairs
ACTUAL PRODUCTION THIS MONTH, 47,529 Pairs

Expense Item	*Monthly Budget at Standard Production*	*Budget Adjusted to Actual Production*	*Actual Expenses*	*Variation of Actual from Adjusted Budget*
Salaries:				
Administrative	$ 750	$ 750	$ 750	$ ..
Payroll	675	710	702	8
Orders and Tags	620	680	658	22
Production	110	110	108	2
Cost	140	140	136	4
Purchase	160	160	152	8
Foremen	1,810	1,810	1,798	12
Mechanical and General	1,420	1,540	1,565	25*
Fuel	780	800	915	115*
Power and Light	710	790	768	22
Water	20	20	18	2
Supplies	210	235	312	77*
Machine Parts and Repairs	810	842	826	16
Repairs to Building	60	60	114	54*
Freight and Express Inward	320	348	219	129
Depreciation Buildings—Reserve	273	273	273	..
Insurance	341	367	369	2*
Stationery and Office Supplies	140	146	97	49
Factory Tags	137	151	152	1*
Containers	15	16	...	16
Stamps and Dies	27	29	12	17
Die Blocks and Cutting Boards	30	33	15	18
Coupon Tags	18	20	5	15
Telephone	75	75	82	7*
Miscellaneous	85	97	27	70
Shoe Racks and Covers	12	13	27	14*
Travel Factory	37	37	29	8
Taxes Local—Reserve	657	657	657	..
Depreciation—Mach. and Equip. Reserve	197	197	203	6*
Group Insurance	102	102	98	4
Truck Operating	22	22	17	5
	$10,763	$11,230	$11,104	$126

N.B. Figures given above are fictitious and do not represent actually or in any proportion the real figures of any company.

* Negative figure.

havoc with the fuel budget. Heavy purchases of material for future use may lead to abnormal expenditures for freight and express, and so forth, but over a six-month period, it has been our experience that the net budget variations are negligible.

The advertising budget comparison has not been illustrated. We may, of course, have volume variations if the sales fall below or rise above expectations, but operating variations are unknown. When the advertising budget in detail has once been accepted by the directors of the company, it is as difficult for the advertising

EXHIBIT 9.

BUDGET COMPARISON
SELLING AND ADMINISTRATIVE EXPENSE
MONTH OF JANUARY, 1936

STANDARD MONTH'S SALES, 97,500 Pairs
ACTUAL SALES THIS MONTH, 81,379 Pairs

Expense Item	*Monthly Budget at Standard Sales*	*Budget Adjusted to Actual Sales*	*Actual Expenses*	*Variation of Actual from Adjusted Budget*
Salaries:				
Administrative	$1,900	$1,900	$1,902	$ 2*
Sales	740	740	738	2
Credit	647	647	648	1*
Bookkeeping	742	712	718	6*
General	910	863	882	19*
Travel	540	540	657	117*
Stationery and Office Supplies	312	296	127	168
Postage	410	397	415	18*
Telephone and Telegraph	214	205	198	7
Donations	198	198	79	119
Credit Agencies and Collections	280	280	642	362*
Salesmen's Equipment	42	42	15	27
Style Shows—Reserve	110	110	110	..
Auditing—Reserve	225	225	225	..
Legal	90	90	27	65
Life Insurance Premiums—Reserve	47	47	47	..
Freight and Express Outward	298	269	179	90
Parcel Post and Insurance	60*	53*	48*	5*
Taxes—State, Reserve	650	650	650	..
Depreciation—Office Equipment Reserve	117	117	117	..
Entertainment	85	85	43	42
Group Insurance	44	44	43	1
Miscellaneous	37	34	87	53*
Total	$8,578	$8,437	$8,501	$ 64*

N.B. Figures given above are fictitious and do not represent actually or in any proportion the real figures of any company.

* Negative figure.

EXHIBIT 10.

PROFIT AND LOSS REPORT
AND
VARIATION ANALYSIS

MANUFACTURING—PRODUCTION 113% OF STANDARD
JANUARY, 1936

Item	*Actual Cost*	*Credits to Manufacturing*	*Gain or Loss*	*Purchase Gain or Loss*	*Volume Variation*	*Operating Variation*
Upper Materials	$ 42,150	$ 44,300	$2,150	$1,900	...	$ 250
Linings & Trimmings	10,795	10,720	75*	125*	...	50
Bottom Stock	46,329	46,700	371	211	...	160
Labor	46,936	47,753	817	...	$ 762	55
Manufacturing Exp...	11,104	12,170	1,066	...	940	126
Royalty & Rentals...	4,335	4,520	185	...	180	5
Lasts, Dies & Patterns	3,895	2,790	1,105*	...	...	1,105*
Sales of Factory Waste	...	115	115	...	...	115
Factory Operating Totals	$165,544	$169,068	$3,524	$1,986	$1,882	$ 344*

SELLING—SALES 83½% OF STANDARD.

Item	*Standard Cost of Sales*	*Sales*	*Gain or Loss*
Sales—Grade A	$ 97,388	$103,000	$ 5,612
Sales—Grade B	138,341	145,600	7,259
Sales—Grade C	126,690	133,200	6,510
Total	$362,419	$381,800	$19,381

Sales Operating	*Actual Cost*	*Cost Estimates*	*Gain or Loss*	*Volume Variation*	*Operating Variation*
Selling and Administrative Expense	$ 8,501	$ 7,140	$1,361*	$1,297*	$ 64*
Advertising	9,200	7,675	1,525*	1,525*	...
Returns and Allowances...	2,972	3,818	846	...	846
Samples	2,110	3,818	1,708	...	1,708
Stock Dept. Expenses.....	3,110	2,703	407*	449*	42
Total	$25,893	$25,154	$ 739*	$3,271*	$2,532

SUMMARY

Factory Operating Gain or Loss.....	$ 3,524
Selling Gain or Loss.....	19,381
Sales Operating Gain or Loss.....	739*
Total Manufacturing and Selling Gain or Loss..	$22,166

N.B. Figures given above are fictitious and do not represent actually or in any proportion the real figures of any company.

* Negative figure.

manager to obtain an increase in his allowance for any advertising item as it is to change the constitution of the United States.

Exhibit 10, the monthly profit and loss report is a summary of the other reports illustrated or referred to, together with a summary of the shoes sold during the month by grades and the estimated profit on those sales based on the standard cost of the shoes sold.

This report, which is prepared for the directors and the higher executives of the company, gives a breakdown of the gains and losses on the various items making up the report into gains or losses from purchasing, gains or losses due to the variation in the volume of production or volume of sales and gains or losses chargeable to operations.

The general profit and loss statement for the month, which is not illustrated, having no bearing whatsoever on standard costs, includes in addition to the manufacturing and selling gains or losses, such items as interest earned or paid, gains or losses by subsidiaries, reserves for income taxes, reserves set up in anticipation of possible inventory markdowns, and so forth.

In preparing the various sheets, which have been used to illustrate the text, none of the prices or the figures used even resemble the actual figures of our company. The various unit prices for materials and for labor piece rates have been increased or decreased until they are completely out of line with the actual figures. They serve the purpose, however, of illustrating our method of obtaining and using standard costs.

From our standpoint, the purpose of a standard cost system is first, the accurate determination of the costs of our product so that our selling prices may be intelligently fixed; second, accurate reports of the progress of the business for our directors and executives; third, the preparation of reasonably exact measurements of the efficiency of the various departments on the basis of which the executives of the company may take action.

The efficient use of the reports supplied by this system is the responsibility of the individual executives. To act with confidence on the basis of the reports which reach him, he must have confidence in the accuracy of the reports themselves. The final test of the accuracy of our work comes at inventory time. If large inventory variations were to appear in the individual accounts, our ex-

ecutives would rightly lose confidence in the value of the monthly reports and in the system itself.

We have been most fortunate in this respect. Our present system, modified somewhat from time to time as changing conditions or increased experience indicated, has been in use for over six years. During this entire period, our inventory variations have been negligible.

Discussion

Question: How do you figure cost of welting in the various sizes and weights?

Answer: That varies with different concerns. We use only a few sizes of welting and make only men's shoes. For this reason, we use a standard welting cost allowance per pair, which is based on the standard allowance of welting in yards per pair, times a standard cost of welting per yard which in turn is based on the weighted average cost per yard of the various types of welting we use.

In companies which make many different types of shoes, the exact cost per pair for each shoe is computed by multiplying the allowed yardage per pair which, of course, differs for men's, women's and boys' shoes, by the standard cost per yard of the many different types of men's or women's welting.

Question: Do you set time standards?

Answer: No, the union will not permit us to do so.

Question: You say that you are predicating on a more or less stable production, mostly stock shoes. What modification would you suggest if make-up were the majority and if the relationship between stock and make-up did not remain uniform?

Answer: The standard cost of a made-to-order or make-up shoe will not differ from the standard cost of the same shoe made for stock. However, a variation in the relative volume of make-up and stock shoes might effect your volume of production by months.

You can plan for a fairly uniform production if you are making largely for stock as you can estimate your requirements for stock several months in advance. If your production is largely make-up, it is difficult to plan a uniform production as most of the customers wish to delay placing their orders as long as possible and usually want to receive the shoes ordered within a reasonably short time

after the order is placed. This, of course, results in peaks and valleys in your production flow which are likely to give you considerable trouble.

In anticipating our requirements for stock shoes, we must of course have a carefully worked out budget of expected sales. We require our salesmen to prepare estimates well in advance of the selling season of the pairs they expect to sell on every stock number in the line and also what they expect to sell on make-up shoes classified by the base shoes from which they will be built up.

While these estimates sometimes go astray, particularly on new shoes put into the line, it is remarkable how close the actual sales will come to the original estimates.

Question: You were speaking of 175 base shoes. You might have 300 or 400 shoes if you were spreading a line of samples. In the 300 or 400 shoes, might there not be a number of shoes made from the same base shoe differing only in eyelets used or in some other minor feature?

Answer: This would not be likely to happen with us. We might have two base shoes which differed only in the color of the leather, that is, a base shoe made of black calf leather in many cases has what we call a companion base shoe which is identical with the black calf shoe with the exception that it is made of tan calf.

We might also have a base shoe made on, let us say, last "A" and another base shoe very much like it but made on an entirely different last. We would never have two base shoes which differed from each other only in the type of eyelets used, the type of tip perforation or in any other such minor detail.

In lining up our base shoes we decide that for that particular shoe, a particular kind of eyelet, a particular tip perforation, and so forth, is most suitable. If the customer buying make-up shoes wishes different eyelets or different perforations, the change can be made on his order, but a customer buying stock shoes must, of course, take the shoes as they are made.

In deciding upon the base shoes we are to incorporate in our line, we usually start with 500 or 600 different shoes, some of which will differ from others only in these minor details. These shoes which are made up in single pairs only as models or trials or pull-overs, are the result of suggestions made by the salesmen or by some of the larger retail customers.

About three months before the semi-annual sales conference, a few of the salesmen who can present the style ideas of different sections of the country, are called in and in a preliminary conference, go over the entire line of models, reducing this line from 500 or 600 to about 300. Another conference held a month or six weeks later will reduce the line to about 225 pairs and a full line of samples will be made up including all of those shoes. At the semi-annual sales conference attended by all of the salesmen, 40 or 50 of the styles will be eliminated so that the line finally accepted at the sales conference will consist of approximately 175 different styles.

Question: When you make out your production sheet, you figure your labor for that sheet, do you not. Is that a part of your estimated cost?

Answer: That is correct. The labor estimate or labor allowance for each production sheet or day sheet is figured from the corresponding copies of sheet shown in Exhibit 4. At the end of the month, the total labor estimate adjusted to the sheet breaks, and for the cases ahead and behind at the beginning and the end of the month, is credited to manufacturing. The difference between the amount of the credit and the actual labor payroll for the month is the labor variation gain or loss.

Question: Do you requisition coal the same as any other expense item, or do you take an inventory monthly?

Answer: We do not inventory monthly. Part of our coal is delivered by truck directly to the fire room and of course, gives us an exact weight of coal used. When we are drawing on the reserve coal piled in the yard, we count the barrows wheeled into the fire room and use an estimated weight for each barrow load, as we do not believe it worth while to weigh each barrow load. We naturally find variations when the piles are cleared up but the variations are never large.

Question: On Exhibit 8 the actual items are debits to respective accounts. Where does the credit come into manufacturing expense and the consequent charge to shoes?

Answer: The manufacturing expense account is credited monthly with the manufacturing expense allowance per pair multiplied by the number of pairs of shoes entered for production during the month. The standard manufacturing expense allowance per

pair is determined by dividing the six months' total budget of manufacturing expense costs by the budgeted shoe production in pairs for the same period.

Question: Do you have any variation in your expense items?

Answer: We do have inventory variations in some of the manufacturing expense items such as machine parts, supplies, factory tags, etc., but they are never large.

Question: I do not think I understand Exhibit 4 and its relation to the day sheet.

Answer: Each day sheet is made up of approximately 100 twelve pair cases of shoes and each case is listed by case number followed by a brief description of the shoe on the day sheet which is used by the production department and the various factory departments for checking the progress of the cases through the factory. Every case number on the day sheet must also appear on Exhibit 4. Frequently, particularly when entering stock shoes, for different customers or of different syles, we would have 100 copies of Exhibit 4 each representing one case of shoes. Ordinarily, however, the stock department or a make-up customer will order several cases of the same style of shoe and in that event all the cases of that particular shoe will be entered on the same copy of Exhibit 4. Frequently, particularly, when entering stock shoes, twenty or twenty-five case numbers will be entered on one copy of Exhibit 4. The group of copies of Exhibit 4 representing each day sheet, are then run through a type 2000-N.C.R. machine, which computes the charges and credits to manufacturing for all the shoes on that day sheet by individual items of cost. The cost of each item for that day sheet is then added to the accumulated costs of each item on all preceding day sheets. At the end of the month the last day sheet out, is let us say, sheet 80 which we call the cutting room sheet break. The manufacturing account is charged with the total cost of upper leather, linings and trimmings, from the accumulated costs referred to above up to and including sheet 80. The stitching room sheet break comes on sheet 76, the bottoming room on sheet 68, etc., and the manufacturing account is charged with the accumulated costs of the corresponding cost items up to each department sheet break.

Question: Are charges made once a month?

Answer: Yes. Cost estimate sheets are figured every day and

the costs of each item are added to the accumulated totals for the preceding day. Charges go through at the end of the month.

Question: It would seem that you have to follow your sheets very closely.

Answer: That is correct. The production manager and his assistant spend half of each day putting up the sheets and the other half in chasing the sheets through the factory.

Question: When the break comes at the end of the month, do you make allowances for a sheet that is not in its proper location?

Answer: We never have a whole sheet or even a large part of a sheet out of place. In addition to the sheet break, we have a record in each department of cases "ahead" and cases "behind". Charges are adjusted to take care of these individual cases out of place.

Question: Does your talk apply to men's shoes only?

Answer: Yes, but the same plan can be applied to women's shoes. However, the sales by styles of women's shoes are much harder to predict. Ordinarily, women's fancy high style shoes remain in style only from six to eight weeks. Very few women's manufacturers have any knowledge of their real costs and probably not more than 8% of the men's manufacturers. Perhaps Mr. Fletcher will give his opinion.

MR. FLETCHER: That is probably a fair average figure in men's shoes. A man's shoe is an easy thing to figure. You see, most of these women's high style manufacturers do not have time to figure any costs. They usually base their costs on what they can get for their shoes.

Question: Speaking of Exhibit 4, I understand that you use this for credits.

Answer: Yes, for both charges and credits to manufacturing.

Question: Taking the industry as a whole, have they made large strides toward uniform accounting?

Answer: I do not think they have. I think Mr. Fletcher knows more than I do about that point.

MR. FLETCHER: I presented a paper at the N.A.C.A. conference in Atlantic City which was published in the Year Book for 1922, outlining a plan of standard procedure for determining manufacturing costs in the shoe industry which follows closely what Mr. Wonson has described. It created enough interest at

the time so that I was asked to talk on the subject at three meetings of the National Boot & Shoe Manufacturers and as a result, we added several new clients who are now operating this identical plan with minor variations. It has been practically impossible, however, to get any group action on the part of the Association or to interest the great majority of manufacturers in real cost accounting methods. The work that Mr. Wonson has done for the Commonwealth Shoe & Leather Co., is typical of what can be done not only in the shoe industry but in any industry where sales are made from samples which must be costed and priced in advance of the selling season. It makes very little difference what the final style is; the first essential is to determine the basic standards of cost. With labor standards based on operations, and material standards based on the merchandise catalog, any shoe can be figured by ascertaining differences from a base standard.

Supposing a salesman sends in a shoe, which retails for $5 that some retailer has taken a fancy to. Suppose he wants to know if the firm can make it to retail at that price. With the plan Mr. Wonson has described, it is possible to take that shoe and, knowing the price to the retailer, to deduct the standard margin of profit, then the selling expense, the factory overhead, the direct labor, and to find the amount left for material. If the shoe will carry the standard profit, selling expense, labor cost, and overhead, and if the material can be bought for the remaining figure, it is practicable to make the shoe, otherwise not, unless the anticipated volume justifies a lower margin of profit. I think progress has been made in the use of uniform cost practice in the shoe industry but it has been limited to a small minority rather than a large majority of the manufacturers.

Question: In case of small manufacturers who make women's fancy shoes, if they only had the brains, they could get a nickel more, which is the difference between making money and going out of business; yet it is almost an impossibility to get those fellows to appreciate one single thing of a burden budget. Certainly, if there is anything that the Shoe Association in this country can do to get those fellows to see a little, the results will improve, and they will bless the fellow doing it.

Answer: The ordinary small concern starts about in this way: A couple of fellows, who are probably working for the same con-

cern—a good salesman and a good shoemaker—get together some evening. One says, "We are fools to be working for so and so, he makes all the money, and we do all the work; let's get together." They get machinery from the United Shoe, a good line of credit on material, and start in. Neither has any idea of cost, and they are not interested in cost. "If so and so can make such a shoe and make money on it, so can we." They make the shoes and sell them. At the end of a year they find they are bankrupt.

Question: Or they go out in the country somewhere and get a plant free.

Answer: They draw fairly good salaries, which take care of them personally and the poor leather houses carry the burden, although they have tightened up in recent years. It is much more difficult for small concerns to get credit than it was five or ten years ago.

Question: Do you pick up a gain on sorting upper leather?

Answer: The main thing in sorting leather is to be sure that we get what we pay for, although the grades that we use may not correspond to the trade grades that are actually sold to us. To fit our requirements, we may make two or three of our own grades from the leather we buy and if those are figured at different prices, we may take a sorting gain or loss.

Question: In actual cutting, isn't it possible that they may use more feet than allowed or less feet, or they may use better or poorer leather?

Answer: We take care of that in this way: The use of more or less leather than is allowed goes into the upper leather variation gain or loss account. We very seldom use a poorer leather, but if we are forced to, we increase the cutting allowance by using a different Krippendorf unit; more often, we use a higher priced leather and reduce the allowance.

Question: Earlier, you said that the cutting operation provided you with a check on the leather you are buying.

Answer: We can compare the leather received from the different vendors or different shipments of leather from the same vendor by comparing the cutting sheets or summaries. We can identify each shipment because every shipment of leather we receive is given a lot number, and that lot number is entered on the cutting sheet.

Question: Do you have a similar gain or loss on sole leather?

Answer: Yes, that is shown on Exhibit 5. That sheet is used as a cost sheet on stock that we cut or on cut stock that we buy and sort.

Question: There is no provision for sizes on that sheet, is there?

Answer: No, only a space for the average size of all the soles cut. The sizes are entered on the sorting sheet, which is a work sheet filled out in pencil by the outersole sorter. Exhibit 5 is really an outsole cost sheet and the average size entered on this sheet is computed from the detail sizes entered on the work sheet.

Our standard cost per pair of outersoles is based on the average size of outsole used on all of our shoes. There is a difference of approximately 4% between sizes. A cost sheet may show an accounting loss because the average size of the soles cut was two or three sizes above the standard average size. In order to determine the real value of the leather for comparison with other cuttings, we apply a size correction factor. This adjusted value is not used in our accounting figures.

Question: Do any of your cutters cut too low a grade out of a particular hide—sole leather or upper leather?

Answer: That cannot happen in cutting sole leather, but may happen in cutting upper leather. That is the problem for the foreman and superintendent. You will find cutters who will try to make good figures, and who may cut the leather too hard, but, of course, all of the uppers are inspected before they go into the factory. After a cutter has finished his job, all the parts that he has cut are inspected by sorters and if any are thrown out, they are called to the cutter's attention. The upper cutters are probably the most highly skilled people that you have in the factory. They have got to know leather; and must know what part of the leather should go into the vamp, what into the tip, into the quarter, etc. We have some cutters who have worked 35 or 40 years in the cutting room.

Question: Do you revise this merchandise catalog of standard prices pretty complete twice a year?

Answer: Theoretically, yes, that is, if the market has changed radically. Practically, no; as there are a great many items that do not change from one season to another.

Question: Do you cost all your upper leather to cases as they come in? In cutting, for example, your better grade shoe, you might, out of the same skin, cut some parts suitable only for your second grade. Would these parts be set aside?

Answer: Skillful cutters will not produce parts below the standard for the grade of shoes they are cutting. If a part is below grade, it is thrown out by the sorters.

Question: In upper leather, one skin might carry several grades within itself?

Answer: That is true to a certain extent. In cutting a shoe to be sold at $8.00, you frequently get vamps good enough for a $15.00 shoe. The consumer gets the benefit of the plan that we follow.

Question: You start off with 175 base stock numbers. Do you add any new base styles during the season?

Answer: That is possible, if there is a change in style we've got to follow. We added eight or ten new shoes during the past season. It is always difficult to foretell just what the style trend will be.

Question: Do you figure those the same way?

Answer: We do the whole job right from the beginning, just as we do on the original.

Question: If prices were materially advancing, would you still use your merchandise catalog?

Answer: We would, but we would take care of the advance in cost in this way: In addition to the small cost estimate sheet that you see here, which is used for the accounting purpose, we have another sheet like it which omits the case and day sheet numbers and has five columns for costs. One of these sheets is made out for each base shoe. If the market changes during the season, all shoes are refigured on the same sheet, but in another column. While we do not change our standard costs or accounting figures, we may, from an inspection of these sheets, decide to increase or decrease our selling prices, based on changes in market conditions.

MR. FLETCHER: You said in opening that this method in general has been in use for 25 years; I would like to amend that to 30.

Answer: That 25 years was like my 175 base shoes, susceptible to change. I know it was at least 25 years ago.

Question: Is the standard cost system an outgrowth of estimated cost system?

Answer: I haven't heard it called an estimated system; I don't know what we used to call it. Do you know, Mr. Fletcher?

MR. FLETCHER: I think standard costs in the shoe manufacturing industry really started in the early days, before there was any cost system, but when estimates were prepared for a comparatively few standard types. In the old days, the estimate sheet of shoes was generally based on averages for material allowances and average labor costs per pair, while burden was often figured as a percentage of the total of material and labor cost. This was common practice until the changes in styles and necessity for greater accuracy brought about a real determination of accurate predetermined standards on which estimates could be based. In the old days, I think most shoe manufacturers thought their basis of estimating was actually a cost system although it rarely, if ever, was tied in or controlled by accounting figures.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of N. A. C. A. Bulletin, published semi-monthly at New York, N. Y., for Oct. 1, 1936.
State of New York, County of New York, ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared R. P. Marple, who, having been duly sworn according to law, deposes and says that he is the Editor of the N. A. C. A. Bulletin and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, National Association of Cost Accountants, 385 Madison Ave., New York, N. Y. Editor, R. P. Marple, 385 Madison Ave., New York, N. Y. Managing Editor, none. Business Manager, S. C. McLeod, 385 Madison Ave., New York, N. Y.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) National Association of Cost Accountants, 385 Madison Ave., New York, N. Y. President, F. R. Fletcher, McKinsey, Wellington & Co., 110 State St., Boston, Mass. Secretary, S. C. McLeod, 385 Madison Ave., New York, N. Y. Treasurer, Philip J. Warner, Ronald Press Co., 15 E. 26th St., New York, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is .....(This information is required from daily publications only.)

R. P. MARPLE,
Editor.

Sworn to and subscribed before me this 28th day of September, 1936.
(Seal)
GEORGE A. CAMPBELL,
Notary Public,
Kings Co. Clerk's No. 176, Reg. No. 8193.
New York Co. Clerk's No. 490, Reg. No. 8C256.
Term expires March 30, 1938.